

What is claimed is:

1. A composition comprising:
a plurality of microparticles, a majority of which have diameters in the range of about 1 to 10 micrometers, each of which comprises a shell enclosing a gas-filled hollow core, said shell comprising an outer layer of a cross-linked amphiphilic material and an inner layer of a biodegradable polymer; and
a sugar.
2. The composition of Claim 1 in which the sugar is sucrose.
3. The composition of Claim 1 which further comprises a surfactant.
4. The composition of Claim 3 in which the surfactant is a poloxomer.
5. The composition of Claim 1 which further comprises a water-soluble polymer.
6. The composition of Claim 5 in which the water-soluble polymer is a medium molecular weight polyethylene glycol.
7. The composition of Claim 1 in which the gas is nitrogen.
8. The composition of Claim 1 in which the biodegradable polymer is selected from the group consisting of polycaprolactone, polylactice, polyglycolide, polylactide-polyglycolide copolymers, copolymers of lactides and lactones, delta-valerolactone, polyalkylcyanoacrylates, polyamides, polyhydroxybutyrates, polydioxanones, poly-beta-aminoketones, polyanhydrides, poly-(ortho)esters, polyglutamic acid, polyaspartic acid and esters of polyglutamic and polyaspartic acids.
9. The composition of Claim 1 in which the cross-linked amphiphilic material is a cross-linked protein.
10. The composition of Claim 9 in which the cross-linked protein is cross-linked human serum albumin.
11. The composition of Claim 1 in which the cross-linked amphiphilic material is cross-linked with glutaraldehyde.

12. A composition comprising:
a plurality of microparticles, a majority of which have diameters in the range of about 1 to 10 micrometers, each of which comprises a shell enclosing a gas-filled hollow core, said shell comprising an inner layer of polylactide and an outer layer of glutaraldehyde cross-linked human serum albumin;
glycine; and
polyethylene glycol 3350.
13. The composition of Claim 12 which is in the form of a dry cake and/or powder.
14. The composition of Claim 12 which is in the form of an aqueous suspension.